

REMARKS

By the present amendment, claims 1 and 10 have been amended to recite that the adhesive layer is an adhesive layer having adhesive property on both sides. Support for this recitation is immediately derived from the nature of the adhesive layer in the application as filed. Also, new claims 15-16 have been added. Support for the new claims is found in particular on page 4, lines 23-26,

Claims 1-16 are pending in the present application. Independent claim 1, and claims 2-7 and 15 dependent thereon, are directed to an optically compensating film, independent claim 8 is directed to a polarizing plate comprising an optically compensating film, and independent claim 10 and claims 11-14 and 16 dependent thereon are directed to a method for producing an optically compensating film.

In the Office Action, claims 1-4 and 6-14 are rejected under 35 U.S.C. 103(a) as obvious over JP 2000-082338 (Nagahama) and claim 5 is rejected under 35 U.S.C. 103(a) as obvious over Nagahama in view of JP 05-212828 (Hani). It is alleged in the Office Action that the transparence conductivity thin film 12 of Nagahama corresponds to an adhesive layer and is adhered to the transparence high polymer film 11 which is a retarder comprising an uniaxially stretched norbornene polymer film, and further, that Hani discloses an acrylic adhesive.

The rejection is respectfully traversed. The transparent electrode layer for touch panel of Nagahama is very different from the coated adhesive layer of the present invention. In particular, the transparent electrode layer of Nagahama is not contacted with another layer on the side opposite the retarder, but only with spacers separating the two electrode layers of the touch panel. Reference is made for example to the partial English translation of Nagahama which is submitted

with this paper. Thus, Nagahama indicates that “a pair of panel plates each having a transparent conductive thin film are disposed through a spacer so that the transparent conductive thin films are opposed to each other” (paragraph [0039] of Nagahama). In other words, the “extremely high adhesion between layers as a layered product composed of the transparent polymer film and the transparent conductive thin film” (paragraph [0041] of Nagahama) does not mean adhesion between the transparent polymer film and another film through the conductive film, but only adhesion between the transparent polymer film and the conductive film. Nagahama is completely silent as to using the conductive film to firmly bond the transparent polymer film to another member.

In addition, Nagahama mentions that the conductive film is made of indium oxide, zinc oxide, indium-tin composite oxide, tin-antimony composite oxide, zinc-aluminum composite oxide, indium-zinc composite oxide and the like (see paragraph [0028] of Nagahama). Accordingly, the conductive film of Nagahama cannot be conventionally regarded as being formed as an adhesive/bond layer. Thus, the electrode layer of Nagahama is very different from an adhesive layer having adhesive properties on both sides as in the presently claimed invention.

In summary, Nagahama does not teach or suggest how to provide an appropriate adhesive layer for a stretched norbornene-based resin film in an optical compensating film, let alone an adhesive layer that would make it possible to avoid the problems of foaming and/or peeling..

In contrast, an advantage of the presently claimed optical compensating film comprising an adhesive layer having adhesive property on both sides and formed by coating the adhesive onto a stretched norbornene-based resin film, wherein the adhesive layer has adhesive force of not smaller than 10 N/20 mm, is that a firm bond between the norbornene-based resin film and a

surface such as glass or a polarizing plate can be obtained via the adhesive. As a result, the previously recurrent problem of foaming or peeling at the interface of an adhesive between the norbornene-based resin film and the surface can be resolved, as discussed in the present specification, in particular from page 1, line 29 to page 2, line 6). The features of the presently claimed invention and their advantages are not taught or suggested in Nagahama or any of the other cited references, and therefore, the present claims are not obvious over any combination of the cited references.

In view of the above, it is submitted that the rejections should be withdrawn.

In conclusion, the invention as presently claimed is patentable. It is believed that the claims are in allowable condition and a notice to that effect is earnestly requested.

In the event there is, in the Examiner's opinion, any outstanding issue and such issue may be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

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Group Art Unit: 2871

In the event this paper is not considered to be timely filed, the Applicants hereby petition for an appropriate extension of the response period. Please charge the fee for such extension and any other fees which may be required to our Deposit Account No. 50-2866.

Respectfully submitted,

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Encl.: Partial English translation of JP 2000-82338 (Nagahama)



Partial Translation of
JP 2000-82338 A

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Title of the Invention : TRANSPARENT CONDUCTIVE FILM,
TRANSPARENT TOUCH PANEL AND
LIQUID CRYSTAL DISPLAY

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(Page 4, left column, lines 22 - 30)

[0028] In the present invention, there is no particular limit to the material
20 of the transparent conductive thin film as long as the material has both
transparency and conductivity. As a representative example of the
material, a thin film of indium oxide, zinc oxide, tin oxide, indium-tin
composite oxide, tin-antimony composite oxide, zinc-aluminum composite
oxide, indium-zinc composite oxide or the like is used. It is known that a
25 thin film of any of these compounds, when formed under appropriate
conditions, can form a transparent conductive thin film that has both
transparency and conductivity.

30 *(Page 5, left column, lines 7 - 20)*

[0039] FIG. 2 shows an example of a liquid crystal display into which the
transparent touch panel according to the present invention is incorporated.
In a transparent touch panel in which a pair of panel plates each having a
35 transparent conductive thin film are disposed through a spacer so that the
transparent conductive thin films are opposed to each other, the transparent
conductive film according to the present invention is used as one of the

panel plates. In the transparent touch panel, when letters are input by means of a pen from the side of the transparent conductive film, the opposed transparent conductive thin films come into contact with each other due to a pressing force from the pen. This brings about an electrical ON state, and thus the position of the pen on the touch panel can be detected. By continuously and accurately detecting the position of the pen, letters can be input based on trails of the pen. In this case, the panel plate on the pen-touching side is the transparent conductive film according to the present invention. Thus, excellent resistance to a pen-input operation can be achieved, thereby providing a touch panel that can be operated stably for a long time.

(Page 5, left column, lines 26 – 43)

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[0041]

[Effects of the invention] The transparent conductive film according to the present invention uses a transparent polymer film of, particularly, an amorphous norbornene-based resin. Because of this, the polymer crystallinity in the vicinity of the surface of the film is low compared with the case of a conventionally used stretched film. Presumably, this allows the transparent conductive film to exhibit an extremely high value of adhesion between layers as a layered product composed of the transparent polymer film and the amorphous transparent conductive thin film. In this case, there is no need to perform a process for enhancing the adhesion property such as a primer process, a heating process that is performed after the transparent conductive thin film is formed or the like. Furthermore, the adhesion has a value of not smaller than 15 g/15 mm. Therefore, when used in a touch panel for a pen-input operation, the transparent conductive film prevents the occurrence of peeling or a crack in the transparent conductive thin film even in the case where due to a pressing force acting on a pen, the opposed transparent conductive thin films come into contact with each other with a large force. Thus, the transparent conductive film achieves extremely high resistance to a pen-input operation. Moreover, the amorphous transparent conductive film is formed in the transparent conductive film, and thus the transparent conductive film achieves extremely high conductivity, transparency, and etching property.